

PATENT ABSTRACTS OF JAPAN

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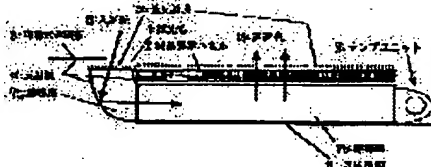
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(54) TRANSMISSION TYPE LIQUID CRYSTAL DISPLAY DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To efficiently use external light as a light source, to reduce the consumption of a battery, and to view display even when a backlight is turned off by arranging a lighting window to collect the external light around a display part and guiding the collected external light to an illumination part.

SOLUTION: When it is very bright on the circumstances, a lamp unit 9 in the backlight is turned off and the external light such as sunlight introduced into a guiding path 7b from the lighting window 1 through a guiding path 7a is used as the light source. Namely, a movable shielding plate 8 is opened, and incident light 13 from the window 1 is reflected by a reflection film 10 formed inside the path 7a and guided to the path 7b. It is uniformly radiated from the back of a liquid crystal display panel 2' by a light diffusion plate 11 as display light, so that picture display where the light reaches an operator as the transmitted light 14 is performed. Meanwhile, when the ambient light quantity is small, the lamp unit 9 is turned on. In such a case, the shielding plate 8 is closed when the light from the window 1 gets in visual field.



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